AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

" O fortunatos nimium sua si bona norint
" Agricolas." . . . VIRG.

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INTERNAL IMPROVEMENT.

FOR THE AMERICAN FARMER.

The Bactrian Camel.

As a beast of burthen for cultivators, and for transportation across the continent, to the Pacific Ocean.

By our arms, and our treaties with Great Britain, France, and Spain, the entire possession and the absolute independent dominion has been acknowledged to us, over that vast portion of our continent, between the twenty-eighth and forty-fifth degrees of north latitude on the Atlantic, and the forty-first and fiftieth degrees on the Pacific Ocean. On casting an eye over the map, this immense region appears to be hooped and banded together by the most extensive lakes or inland seas, and some of the noblest rivers on the globe. The spirit and ingenuity of our citizens have done much, more already, perhaps, than ever was done by any other civilized people, to improve the navigation of such great streams, and thus to give activity and additional force to the influence of those extended commercial highways, as bonds of union and harmony, and as channels of profit and prosperity.

The territory along the coast of the Pacific, within our dominion, and for a considerable distance inland, to the foot of the first range of mountains, is very fertile; it is well adapted to the production of the grains and fruits of the atlantic portions of the union, and abounds with the greatest quantity of excellent timber, particularly ship-spars, which surpass in lightness, elasticity, and strength those of the growth of any other part of the world. The fisheries of the Columbia River, and the neighbouring inlets of the coast, have been well ascertained to be more accessible, safer, and fully as productive, as the best situations off Newfoundland. That the climate is salubrious and healthy, is proven by the numerous, and robust population of Indians, that inhabit the country. Settlements, will no doubt very soon grow up, and spread along the shores of the Columbia River with astonishing rapidity, and the young athletic powers of our government will, ere long, launch into its waters a fleet to move along the coasts of the Pacific, and take under its protection the commerce, which the enterprise of our citizens will soon create and extend over those seas, to an incalculable amount. The passage from the Chesapeake, the centre of our Atlantic border, by sea, round Cape Horn, to Columbia River, and back, as proven by the numerous voyages of our North-West coast traders, cannot be accomplished in less than ten or eleven months. These two great maritime, and highly beneficial borders of the United States, are, thus, by the vast southern stretch of our continent, almost completely separated, the one from the other, and divided into distinct spheres and ranges of maritime commerce; which, however, the obvious interests of the union render indispensably necessary to connect by every possible and practicable means to the heart of the territory and population, by river, or by land transportation, or by both, and by the most rapid and certain communications. To enable the government to wield its potent energies with effect; and to give to the American people the means of exerting their enterprizing commercial spirit, to the greatest advantage, and to enable them to make due profit from the great resources of their country, it has become necessary, that a short, direct, and certain means of communication should be established into every quarter, to the most remote point, and particularly over the continent, to the Pacific Ocean.

Steam boats have effected much; our improvements and facilities of intercourse, in that way, have justly attracted the admiration of the civilized world; but there are physical difficulties and obstacles which that masterly invention can neither surmount nor remove, with all its skill and power. The navigation into the interior, along the Missouri, is very circuitous; it is short of the great object, that of reaching the Pacific, by many hundreds of miles; because from the falls, there is, thence, a distance of about eight hundred miles over to the Columbia River, no navigation practicable for vessels of any size; from the falls, downward, for a thousand or fifteen hundred miles, the navigation is entirely closed by ice during the winter season. Therefore, whatever advantages may be derived from steam-boat transportation of heavy articles, by the way of the Missouri, into the interior, it must certainly be abandoned as the mail route to the coast of the Pacific; and, also, I am inclined to believe, as the route for the transportation of any articles across the continent, farther than Yellow Stone River. Beyond that point, other modes of conveyance must be sought for and applied, and the only means, at present, in our power, and capable of being so supplied, are horses and oxen

The oxen of the United States, are in many respects very serviceable animals; they are more patient of fatigue, bear worse treatment, may be sustained on coarser food; and in the draft, are not so apt to become restive as horses; but they are more unwieldy, aukward, and much slower in their pace than horses. The oxen of Spanish America, owing, perhaps, to a constitutional fierceness of temper, like the cattle of Spain, from whom they are descended, are remarkable for their superior size, agility, and quick step. They are commonly used for long journies in caravans of heavy loaded carts; and are generally, able to travel, thirty or forty days together, with no other food than the grass which they are occasionally turned loose to gather by the way, at the rate of about thirty miles a day.—The oxen of South America, not only surpass ours in speed but they travel as fast again as our best wagon horses. The west country wagons, travelling between Baltimore and Pittsburg, a distance of two hundred and forty miles, on an average require sixteen days to perform the journey; that is at the rate of about fifteen miles a day; and, it is believed to be as fast as a loaded team is, in any country, allowed to travel, on a journey, each day.

Supposing then, the distance from St. Louis to the mouth of the Yellow Stone River to be twenty-five hundred miles; and allowing, that a steam boat will be able to ascend the river Missouri to the confluence of that stream, with as much ease as from New Orleans to St. Louis, it would be fifty days in reaching the Yellow Stone from St. Louis; and estimating the distance from the mouth of the Yellow Stone to that of the highest navigable part of the Multomah, or the Columbia, to be one thousand miles, by a road equally practicable, with those from the Atlantic sea-ports, to the western country, beyond the mountains, the land transportation from the navigable waters of the Atlantic to those of the Pacific ocean, will require a journey of sixty-seven days for loaded wagons drawn by horses; and supposing the mail to ascend the river Missouri, and to pass over by the same route, and allowing it to travel at the rate of one hundred miles a day, by land, it would be not less than one hundred days in reaching the Pacific from Washington, by way of St. Louis.

A communication from coast to coast, so circuitous and tardy, is obviously fraught with the most seriously evil consequences to the integrity and harmony of the union. It may be safer, and in general exposed to less risk, than that by the way of Cape Horn; but, in the winter season, of our hemisphere, it must be more interrupted and longer discontinued, than that by sea. It behoves us therefore, to turn our attention, in time, to some mode of procuring a more speedy and less broken intercourse with the opposite coast of our continent, before the settlements which must, very soon take root and spread along it, shall have their interests developed in other directions, and be estranged from their natural and beneficial connexion with their kindred of the Atlantic mother country. This communication I believe to be perfectly within our power to effect, by means of the BACTRIAN CAMEL, whose constitution, seems to be in all respects, formed to endure hardships, to encounter the severities of our winters on the great plains of the interior, and the bleak sterility of the rocky mountains, no less than the sultry dry deserts traversed by the rivers Platte and Kauses of the Missouri territory.

In speaking of this valuable animal, it must be recollected, that it is not the Arabian species to which I allude, whose uses are exclusively confined to the roving inhabitants of that sultry region beyond which they never stray, and without the arid atmosphere of which, the quadruped

seldom flourishes, and never multiples; but, to the animal of the camel species, which traverses the vast plains of central Asia, from the Don to China; whose robust constitution and fleetness, has enabled the wandering Tartars to explore, to make incursions, or to take refuge on every border, and in every quarter of the prodigiously extended regions of Asia, and eastern Europe, from the Don to China; and from the upper waters of the Ganges to those of the Tobol and the Lena, and to spend the winter on the shores of the lake Baikal, in north latitude, fifty to fifty-five. The Arabian camel has been transported into Spain, and into some parts of Spanish America, within the tropics; but it did not succeed, owing to the occasional colds, and the winter of Spain and the excessive humidity of America — Wet and mud occasions the legs of the Arabian camel to swell, brings on a paralysis of its limbs, causes it to fall down suddenly, and of which disease the animal seldom survives long. This was observed of the Arabian camels taken by BONAPARTE from Cairo into Syria, along the humid district of the coast.

"The *Bactrian Camel*, no less patient, durable, and long lived,* than that of Arabia, differs from it as materially in constitution, as in external form. This animal is distinguished from that of Arabia, in that it has two bunches, the body longer, the tail lower, and the hair mostly of a yellowish brown; instead of which the Arabian Camel or Dromedary, has only one bunch, and that very high, and which is generally covered with ash coloured hair. These animals are naturally tractable, and of great strength; for they can carry from fifteen hundred to two thousand pounds weight, and travel faster than the other camels, many leagues a day, without eating; and, also, like them, will continue without drinking for twelve days together. These animals often weigh three thousand pounds, and are from six to eight feet high. The form of their body is neither disproportionate nor ugly; the head and nostrils are oblong; and the lips and mouth like those of a goat: the ears are hairy, small, and something like those of a horse; the neck is thick and handsomely arched; it lies low in the back, and seems to be inserted between the fore legs; from the throat, as for the breast, it is adorned with beautiful hair, long and curled; the hair on the back is yellowish; towards the belly brown; and under quite dark: the belly is gray; under the breast a hard skin forms a kind of shield or defence, which comes down in a point towards the fore legs, so that, when he lies down, he rests himself entirely upon it: there is a thick protuberance growing round the thighs, crowned with a tuft of long black hair; the tail is short, adorned at the end with a tuft of hair; the skin is thick and hard; on this account some naturalists suppose all perspiration suppressed, and that this may be the reason why the animal drinks so seldom. The *Bactrian Camel* is extremely hardy, and in great use among the Tartars and Mongols, from the Caspian Sea to the empire of China. It bears even so severe a climate as that of Siberia, being found about the lake Baikal, where the Burats and Mongols keep great numbers. Here they live during winter on willows, and other trees, and are by this diet reduced very lean. Attempts have been made to introduce this species into Jamaica, and the Barbadoes, but they did not succeed. In Tuscany, however, the grand Duke LEOPOLD, afterwards Emperor, introduced a few, which increased in a few years to two hundred; but so great a price was asked for them, that they have not been purchased into other parts of Europe, which is to be lamented, when it is considered, that they may be fed so very cheap, are twice as strong as a horse, and travel with a load twice as fast."

"There are several rarities among these Camels. What are called the Maihary, and Ra guahl, are very swift. The last, which has a delicate shape, and is much inferior in size, never carries burthens, but is used to ride on; it is trained for running matches; and in many places, for carrying couriers, who can go above one hundred miles a day, for nine or ten days together, over burning deserts, uninhabitable by any living creature. In western Tartary there is a white variety, very beautiful, and sacred to the idols and priests. The Chinese call them by the expressive name of *Fong Kyo Fo*, or Camels with feet of the wind. This is very rare, being an exotic, and only kept by the great men. It is to this swift, and delicate variety, that the name of *Dromedary* ought, exclusively, to belong; as that word is derived from the Greek word which signifies *swift running*; whereas, in general the animal with one bunch is called *Dromedary*; that with two, *Camel*. This beautiful breed is found in the highest perfection in China, and western Tartary."

Aided by the singular excellencies, powers, and fleetness of the *Bactrian Camel*, in selecting our course over the continent, from the city of Washington to the Pacific Ocean, we might proceed straight forward, by the most direct route, regardless of wildernesses or desert wastes, and of every thing, but the lofty precipitous walls of the Allegany and the rocky mountains. We should shape our course on the back of such an animal, by the nearest and straightest way; and therefore, I will suppose the road to be traced out, solely with a view to such a means of conveyance. From the city of Washington, the present mail route may be pursued to St. Louis, a distance of nine hundred and eighty-three miles, as set down in the list of Post Offices. From St. Louis to Fort Clark, a few miles below the mouth of the Kanses River; thence passing the old Kanses villages on the Missouri, and ascending along the right bank of the great Memehaw River, in a north westernly direction, and crossing the Platte river to the Pownee Loup villages, in lat. 41, 10, long. 100, W; thence in a westernly direction towards the lake at the head of the Yellow Stone River in lat. 43, 10, long. 110, W; through what is called, the southern pass of the rocky mountains, to the left bank of a branch of the Columbia River, called the south fork of Lewis' River; thence descending into the great dry plain at the western foot of the mountain; thence, in a north west direction to the mouth of the Multomah River; thence to the settlement on the coast of the Pacific near the mouth of Columbia River.

From St. Louis to the Big Horn River, near the eastern foot of the rocky mountains, the country according to every account, is one vast, uninterrupted, unbroken plain; consequently, the route need not deviate, either to the right, or to the left, from the direct course up to the entrance into the mountains in the direction towards the head of the Yellow Stone River, and may, therefore be safely set down at a distance of nine hundred and fifty miles; thence, over the western foot of the mountains, there is no estimating the distance with any very great degree of precision, but making a liberal allowance for necessary deviations, the route, over that great ridge, cannot exceed three hundred miles; thence to the sea coast, at the mouth of Columbia River, by the way of the confluence of the Multomah, cannot be more than six hundred and fifty miles, making in the whole, a distance, of little less than, twenty nine hundred miles from the city of Washington to the Pacific.

The fleet *Bactrian Camel*, well broke for riding, which can, singly, travel for many days together, at the rate of more than one hundred miles a day, might with reliefs, relays, and care, be made to transport the mail over the continent at the rate of two hundred miles a day, with great ease: which would carry it from the city of Washington to the mouth of Columbia River, by the direct route I have designated, by the way of St. Louis, and the head of the Yellow Stone River, in fifteen days, at least: and, in one month, an answer might be thus obtained to any communication from one coast to the other of our continent. This species of the Camel is as docile and tractible, for the draft, as the horse or the ox; and travelling so much faster, might, with great advantage, be applied to the draft of carriages for passengers, and the transportation of goods; and with tolerably improved roads, would accomplish the journey with relays, along the direct route I have pointed out, from the city of Washington to the Pacific in thirty day, with no distress, and little fatigue to the traveller.

This speedy and certain mode of transportation, across the continent, and in every direction into the interior, and to the north and south western frontiers of our union, would be attended with the greatest and most important commercial benefits as well as prodigious political advantages.

But, in addition to these more general considerations, the *Bactrian Camel* would be the most valuable acquisition, that our southern and western planters and farmers could possibly obtain. The Camel not only sustains itself on a less quantity of food, and that of the poorest and coarsest kind, such as would be rejected even by an Ass, but it will perform twice the labour of a Horse, either in harness or under the pack saddle. The Camel will browze on the boughs and rough shrubbery of our forests, or feed on straw sprinkled with a little brine in preference to the best hay. We know, that from James River to the Mississippi, along the sea board, where the planting system of husbandry prevails, and where the land holders are chiefly engaged in the cultivation of Corn, Tobacco, Indigo, and Cotton, there is a very scanty supply of rack food made, or laid up for the support of stock. We know too, that during the hot summer months, the labour of travelling over the burning, sandy roads of the

* The Camel, it is said, with ordinary care, lives, and is fit for service, upwards of *forty years*.

Carolinas, Georgia, Alabama, and Mississippi, is almost insupportable, and is exceedingly destructive to Horses. To all the south eastern portion of the union, therefore, the *Bactrian Camel* would be, by far, the most valuable labouring animal that could be introduced into it. And, since it has been found by actual experience, to increase, multiply, and flourish in Tuscany as well as in its native regions, there cannot, I should imagine, be a doubt in the mind of any one, that, all that portion of the United States, from the Potomac south and below the mountains, as well as the great plains, west of the Ohio River, and on the Missouri, would in a very high degree be suited to its constitution and habits.

I have heard of an idle project having been actually brought before the legislature of one of the states, and being very gravely discussed, for encouraging, by law, the importation of English *Phesants* and *Rabbits*, and for the sowing of *scots broom*, and some of the barren tracts of the state as a cover for them, thereby to promote and increase the sports of the field, for the exercise and amusement of the *Gentlemen Citizens*. Why should not an effort be made to import so valuable an animal as the *Bactrian Camel?* Would not the subject be well worthy of the combined efforts of a voluntary association of planters, and public spirited citizens to make up a fund to defray the expense of importing the breed? Are not the general advantageous uses, to which the *Bactrian Camel* may be applied sufficiently great, and extensive to make the importation of the breed worthy of the serious attention of the national government? Let not this project be too hastily pronounced chimerical. Look over any of the well stocked, and cultivated farms of our country, and inquire, whence *originally*, came the various plants, and animals, which constitute their comforts, delights and riches? And a careful investigation will show, that they have been gathered from every clime, and almost from every region of the habitable globe. Why not add the majestic, long lived, placid, and valuable *Bactrian Camel* to the number of the auxiliary labourers and carriers for the active citizens of this nation? The subject is worthy the attention of every

AMERICAN.

AGRICULTURE.

Prince George's County.

JOHN S. SKINNER, Esq.

Sir :— Being instructed by the Board of the Agricultural Society in Prince George's County, in consequence of an offer you have made to the Vice President thereof, Dr. *W. A. Daingerfield*, to forward certain papers to you for publication in your very useful and interesting work, "The American Farmer," I take the liberty, in conformity to a resolution of the committee, to transmit the addresses of the President and Vice President herewith, accompanied with a letter from Mr. *Lee*, of Maryland tract, on the culture of Indian corn; also a report by Mr. *W. Hebb*, upon the amount and value of Tobacco exported from this country.

I enclose you herewith an abstract of our laws, as revised on the 4th of May, 1818, and have the honour to sign with much esteem, sir, your obedient servant, A. W. PREUSS,

Sec'ry to the Agr'l Society in Prince George's County.

LAWS, &c.

Of the Agricultural Society of Prince George's.

I. The Society shall be styled, *The Agricultural Society in Prince George's County, Maryland.*

II. The Society's attention shall be confined to Agricultural, and Rural affairs dependent on it.

III. The Society shall have a President, a Vice President, a standing Committee of three members, (to be named by the President) a Secretary, and a Treasurer, to be elected annually by the tickets of a majority of the members present at one of the stated meetings, in October. The office of Treasurer being, in the infancy of our institution, too inconsiderable to form a separate duty, is to be incorporated with that of Secretary; and, in case of any vacancy, by death, resignation, or removal of any of those officers, the place may be supplied by a new election, at the next stated meeting, to serve the remainder of the year.

IV. A quorum of business shall consist of at least five members, including the President or Vice President.

V. At all meetings of the Society, the President shall exercise the usual duties of that office; all motions shall be addressed to him, and on all questions he shall collect and declare the vote. In him is vested power to call to order, and open and close the proceedings; he shall also, have power to call special meetings, and to correspond with other societies; and in his absence the same duties are to be performed by the Vice President: and if it happen that at any meeting, both President and Vice President be absent, the majority of the members present (if forming a quorum) choose a President for that day.

VI. The Treasurer shall keep the accounts in the book of the Society, and when called upon by the committee, produce them for inspection. Whenever his office ends, he shall produce a fair and regularly stated account of all receipts, payments, and expenditures, and deliver it together with those books and all other property of the Society, into the hands of his successor in office.

VII. The Committee are to regulate and manage the pecuniary affairs of the Society, to order expenditures to be made when necessary, and issue their order on the Treasurer, signed by them jointly. They are also to collect all useful and curious information, to be presented to the body of the Society, and to be the depositories of presents of animals, curious seeds, utensils of late invention, made to the Society by individuals or other associations, or acquired by purchase; and to render an account to the Society of the use made of them, for the benefit of the members.

VIII. The Secretary shall have in charge all the books and papers of the Society, and keep the same in exact order. He shall also register all letters which shall be written by him, by order of the President.

IX. The stated meetings of the Society shall be on the third Mondays of May and October, at a place selected by the Society at each previous meeting.

X. The members of the Society shall be entitled to the privilege of introducing such strangers, as auditors to the meeting, as are desirous to become members of the Society. The candidate must be proposed at the opening of the meeting, and is to be elected by a majority of two thirds of those present, in his absence, before it closes. The Secretary then shall issue notice to the new member (if absent) of his being elected, to the following purport: "The Agricultural Society of Prince George's County, Maryland, have, at their semi-annual meeting on the —— last, elected you a member, in testimony of their confidence in your capacity and inclination to promote the objects of their institution."

XI. For the purpose of defraying the necessary expense of the Society for paper, books, and postage, and to create a fund for other contingencies and objects, every member shall annually pay to the Treasurer a contribution of one dollar. This contribution shall be considered as due and payable at or before their first stated meeting in the year, and at the second meeting the Treasurer shall lay before the Committee a list of the members, specifying who have and who have not paid their contribution, and if, after twelve months' arrear, any member still remains indebted for his contribution, such member shall, after demand for payment has been personally made on him by the Treasurer, be considered as withdrawing from the Society, and be no longer deemed a member of it, and the same shall be entered on the minutes.

XII. When any new rule, or alteration in old ones, is proposed, the same is to be entered on the minutes and considered by the Society at the next meeting, and if two thirds of the members agree, then to pass into a law.

PRESIDENT'S ADDRESS.

I much regret that experienced and successful farmers are so diffident that they decline adding to the general stock of agricultural information, by imparting the results of their practice. That every one of us may be excited to contribute his portion to benefit his neighbours and his country, I will commence this address with an extract from Israelis' admirable work, entitled, Literary Characters.

"I have said, that authors produce their usefulness though their good is not of immediate application, and sometimes unvalued by their own generation. On this occasion, the name of Evelyn always occurs to me. While Britain retains her awful name among the nations of Europe, the *Sylva* of Evelyn will endure with her triumphant oaks. In the third edition of that work, the heart of the Patriot exults a its result, he tells Charles the first, how many millions of timber trees, besides infinite others, have been propagated and planted by the instigation of this work. It was an author in his studious retreat, who, casting a prophetic eye on the age we live in, secured the late victories of our naval sovereignty—inquire at the admiralty and they will tell you that it was with the oaks that the genius of Evelyn planted."

The same character existed in France when De Serres, in 1599, composed a work on the cultivation of mulberry trees, in reference to the art of raising silk worms. He taught his fellow

citizens to convert a leaf into silk, to become the representative of gold. I lately received a medal, recently struck in remembrance of De Serres, by the Agricultural Society of the department of the Seine.

This act of gratitude, in commemoration of the usefulness of De Serres, will, I hope be imitated in this country. We have too long erected statues and struck medals, only to transmit to posterity an admiration of heroes:

"Who heap'd the plain with mountains of the "dead."

And we have too long neglected the benefactors of the human race, who have improved the cultivation of our soil, and caused abundance.

That wood is becoming scarce and dear, is now the subject of general conversation; we ought therefore to begin planting with Evelyn's foresight. Were we to plant Locusts, Chesnuts, Cherry trees, Persimmons and others of quick growth along our fences, they would grow without any loss of ground, and amply repay us for a little trouble in the autumn, when we can most conveniently spare hands. These trees would not only be an ornament, but would shelter our fields from the drying winds which are injurious to our crops. My best turnips were produced last year, near a hedge. In England, every field is sheltered by hedges, and their wheat crops average 25 or 27 bushels an acre. In this country, we seem still to retain the aversion of original settlers to woods, and pride ourselves on having lands cleared of every tree. I have planted this year, about three hundred trees, and in ten years, they will be worth four or five dollars each, not five in a hundred have failed; I mean to continue planting an equal number every year. It may be said that I shall not live to benefit by them, but I enjoy the thought that my successors will mention with affection, that I reared the trees which affords them shade, or gives them fruit—nay, if I wished to sell my retreat, its value would be greatly enhanced by my trees. In England, the wood of an estate, is always sold separately, every tree being valued as so much ready money.

Think how advantageous it must be, to have locust trees ready for rails, all along our fences. We might say with Dr. Watson, the Bishop of Landaff, that our own foresight and industry, had created a fortune for our children, exclusive of the arable land. If we had trees along our fences, they would claim our attention as we went over our farms, and we would expedite and improve the growth by trimming them.

I have thanked Mr. Crawford, the Secretary of the Treasury, in the name of our Society, for his exertions, to introduce all kinds of valuable seeds from abroad, and I have requested him to desire the captains of vessels, to bring plants of the Italian chesnut, that they may be engrafted on our own.

I recommend the subject particularly to your attention, as the rapidly increasing city in our neighbourhood, causes a great consumption of wood, which I have perceived much diminished even during my short residence in Prince George's county.

Evelyn recommends the loppings and leaves of Elms dried in the sun, as a great relief to cattle, when fodder is dear, and he says, that they are preferred by cattle to oats. The Hertfordshire people, in his time, gathered them in sacks, on purpose for cattle and swine.

I have already quoted Sir Humphrey Davy's remark, that apple trees yielding apples of a particular kind, became extinct after a certain period. Let each of us sow seeds to make a nursery of apple trees, by which means we shall obtain a variety of fruit, and some may surpass even the Newtown pippins, which form now a considerable article of exportation.

I am sorry that my anticipation of a great fall in the price of cotton, has been realised, and I much fear, that the price of tobacco will be much reduced after next year.

Mr. Crawford, has estimated the exports of

cotton last year, at	31,000,000
And of Tobacco, at about	10,000,000
And of wheat, flour, &c. at about	12,000,000
Making	53,000,000

Out of our whole exports of 73,000,000, these three articles have fallen in value, about 20,000,000; we ought therefore, to pay our attention to a variety of new articles, which may afford a profit.

It is stated, in a newspaper, that the seed of pumpkins, makes very good oil, I hope that some of us will ascertain this by experiment. The writer says, an acre of ground of Indian corn, will nevertheless produce 50,000 pounds of pumpkins, containing 2000 pounds of seed, and that the seed will produce 200 gallons of oil worth about a dollar per gallon. Should this prove unexaggerated, we may rejoice, that when tobacco falls very low, we may have so profitable an article, so easily produced.

Opium, I think might be advantageously cultivated in our country, as the poppy* suits our climate. In India, the contractor supplies the East India Company with opium, at much less than a dollar per pound, if my memory does not fail me. The cultivator who sells to the contractor, pays ground rent about 18 dollars per acre, and he is also cheated in weight. Little children collect the milk, which exudes from incisions made in the poppy's head. The seed produces a very fine oil, without any narcotic quality, which is good for the table, and also preferable to all others for white paint. My physician in Asia, always produced opium from my garden, to make his own laudanum, as he said, that laudanum produced from purchased opium, differed in degrees of strength, on account of the adulteration of opium, and consequently a prescription of 20 or 50 would have different degrees of strength. The wholesale price of opium is now seven dollars per pound. If each farmer made only one pound in his garden, the whole produce would almost amount to the value of our tobacco.

I was pleased with my crop of turnips last year, although I sowed much too late, for as potatoes failed, they enabled me to feed my cattle and hogs, through the winter. This year, I am preparing my ground better. The manure my cattle produced, has been of great service, and I have no doubt that my arable land, will in two years, be capable of producing double what it did. At the first hearing of this, the mind calculates only a double profit to a farmer, but really his profit is more than quadrupled. Suppose the expense of seed, of ploughing, &c. to be two, and the farmer realises one third more; if this crop is doubled, he obtains four from two, and his estate will be annually improving.* When I first purchased my farm, I was ignorant of the different qualities of soil, but have from experience determined never to cultivate a poor soil, without previous manuring. Expense and vexation must always be the result of tilling exhausted land. Again let me recommend deep ploughing, it throws up new soil to be mellowed by winter frosts, and enables rain to penetrate low. My neighbour, Mr. Tolson, sets us all a good example, and exhibits abundant harvests.

Our horses and our oxen, are too small to do good work. I expect every day a bull and two cows, which will I hope, improve the breed of our cattle.

I wish very much for tracts upon the different kinds of corn and of potatoes. I left some potatoes in my ground last fall, for experiment sake, and am gratified by finding that they have all come up; these will give me a good supply du-

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* The magic operation of opium, derived from this interesting plant, on the mind, is beautifully described in Darwin's Loves of the Plants, beginning thus:

"Sopha'd on silk, amid her charm-built towers,
Her meads of asphodel, and amaranth bowers,
Where sleep and silence guard the soft abodes,
In sullen apathy PAPAVER nods.
Faint o'er her couch in scintillating streams
Pass the thin forms of Fancy and of dreams;
Froze by enchantment on the velvet ground,
Fair youths and beauteous ladies glitter round:
On crystal pedestals they seem to sigh,
Bend the meek knee, and lift the imploring eye.
* * * * *"

By the same author we are told, that the Poppy has many males, many females. The plants of this class are almost all of them poisonous; the finest opium is procured by wounding the heads of large poppies with a three-edged knife, and tying muscle-shells to them to catch the drops. In small quantities it exhilarates the mind, raises the passions, and envigorates the body; in large ones it is succeeded by intoxication, languor, stupor and death. It is customary in India for a messenger to travel above a hundred miles without rest or food, except an appropriated bit of opium for himself, and a larger one for his horse at certain stages. The emaciated and decrepid appearance, with the ridiculous and idiotic gestures of the opium eaters in Constantinople, is well described in the Memoirs of Baron de Tott.

For Mrs. O'Niel's beautiful ode, celebrating the praises and the powers of the poppy, we refer the reader to the following number.

Ed. Am. Farmer.

* By this calculation it is evidently more advantageous to have half your hands hauling manure, and to cultivate only half your ground, because you will have an equal crop, with less expenditure of seed, and your accumulation of manure, will be an increase of capital.—I am so certain of this, that I expect to make my land, really worth $200 per acre, by augmented productiveness. In Virginia, the average wheat crop, is from 5 to 10 bushels per acre, as labour is dearer in this country than in Great Britain, it is the more important to cultivate less and produce more.

ring harvest; the small ones returned to the ground, after selecting the large ones in autumn, will thus produce an early crop, without trouble. Should this mode be a novel one, it being thus imparted, may prove useful to many.†

I hasten to conclude, being conscious that communications upon farming, must appear of little value to tobacco planters, who convert their meadows, and even their gardens to that herb which enables one hand to produce from six hundred to a thousand dollars per annum.

My desire is, to suggest what may prove profitable, when a superabundance of any one article, will, by a reduction of price, induce us to give attention to some others of benefit to ourselves, and to the community. Our time of meeting enables me to congratulate you upon the prospect of an abundant harvest.

FOR THE AMERICAN FARMER.

HEDGING.—*No.* 2.

Having been led a little off the inquiry, into the subject of the *best material* for fencing, by endeavouring to describe some of the different kinds of thorn, most in use for hedges; I shall now compare that of *timber*, which is the general article of fencing, with that of a *living thorn*. Timber is made into fencing in various modes, according to the convenience or fancy of the owner; some kinds are more durable than others, and it is not in every case that durable timber can be had; therefore, such as we have, must be made use of, and a considerable portion of labour is necessary to prepare it for the purpose, whether of a durable kind or not; *all is perishable in its nature sooner or later*, which ought never to be lost sight of in making the comparative estimate, either with stone, or a quick-set hedge, (more upon stone hereafter.) *Thorn* is the *best material* for a living fence; it seems to have been formed by the Great Author of all our comforts, for the purpose of hedging, and as hedging was in use at an early period, we have no reason to doubt that the thorn was made use of, especially when we consider its advantages, above every other shrub that has been brought into use. It never aspires to be classed with the timber of the forest, but keeps always within the reach of control and management. If planted when young into rows for that purpose, and afterwards neglected, (which is often the case,) until it rises to the common height, 10 or 12 feet, and in that natural shape and erect attitude, it then becomes cumbersome and unpleasing in appearance by obstructing a view of the farm. It may be cut off at a proper season near to the ground, and the cluster of young shoots that each stump will afford, will be sufficient, in two or three years, to form a hedge, in any *other* mode of training which the owner may choose. Should an error happen in his first attempt, in the manner or form of training, the subject is not past recovery; it may be cut away a second or a third time, and so on, the root continuing good, so far as the writer has seen experiments made, which were mostly with the cock-spur kind; though he has reason to believe the other kinds will bear a like treatment, if necessary. All are tenacious of life, and although they grow more luxuriant in a good soil, yet they will live on the most unproductive clay. The writer has observed some scattering stocks that were originally planted on the side of a public road, now a turnpike, as if intended for a hedge, but now entirely neglected; the cutting down of the road by travelling, left those stocks on the brink of a clay bank, without soil or any kind of culture, exposed to the inclemency of the northern blast; at least for fifty years having a northern exposure, and no visible change has occurred that can be recollected; they are yet living, and as likely to continue as they were half a century past.—This is mentioned to show the constitutional duration under the most steril circumstances, and I might, if necessary, note divers others of similar duration, hoping it may be sufficient to remove that deep rooted prejudice which has got possession of some minds respecting its durability; this unfavourable conclusion having no doubt taken place from seeing certain portions or spots in hedges that have failed and become dead, without tracing out the cause.

The writer has known several instances, from some *local* cause; the walnut or cedar trees growing in the vicinity of a hedge, is sure to cause decline in the part near to it, and ultimately death will follow if the cause is not removed. It is thought to be the farina of the cedar, but the walnut has produced the effect before it arrived to that state of maturity as to produce farina. It has been well ascertained, that the different kinds of thorn have all been killed by those particular enemies, and probably there may be others equally pernicious, if observed.*

It is also reasonable, that a hedge should have the full benefit of *sun and air*, as will be shown hereafter, by removing every obstruction to that enjoyment.

It may be observed, that a *wooden* fence will decay also, in a situation where the freedom of air is obstructed by bushes, briars, or any rubbish, so certain to prevail where attention is wanting to keep hedge rows or fence rows clear from pestiferous productions.

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ject the cases and causes of vegetable hostility, might lead to useful discoveries in practical agriculture—it might show for instance, why it is that certain grain crops answer better than others as a sheltering crop for certain grasses, and *vice versa*—It might lead to the discovery, that the falling of certain fruit is to be attributed to the presence of some hostile tree, instead of being attributed to other causes—and saving from errors, as to *causes*, of course it would save us from numerous errors in the application of remedies—Such an inquiry might develope facts as regards the repugnance of various vegetables to each other that would even lead us no longer to regard as fabulous, the existence of that famous tree in the plains of *Java*—where

"—No spicy nutmeg scents the vernal gales,
Nor towering plantain shades the mid-day vales;
No grassy mantle hides the sable hills;
No flowery chaplet crowns the trickling rills;
Nor tufted moss, nor leathery lichen creeps
In russet tapestry o'er the crumbling steeps.
—No step retreating, on the sand impress'd,
Invites the visit of a second guest;
No refluent fin the unpeopled stream divides,
Nor revolant pinion cleaves the airy tides;
No handed moles, nor beaked worms return,
That mining pass the irremeable bourn.—
Fierce in dread silence on the blasted heath
Fell UPAS sits, the HYDRA TREE of death.
Lo! from one root, the envenom'd soil below,
A thousand vegetative serpents grow,
In shining rays the scaley monster spreads
O'er ten square leagues his fair-diverging heads;
Or in one trunk entwists his tangled form,
Looks o'er the clouds, and hisses in the storm.
Steep'd in fell poison, as his sharp teeth part,
A thousand tongues in quick vibration dart;
Snatch the proud Eagle towering o'er the heath,
Or pounce the Lion, as he stalks beneath;
Or strew, as marshall'd hosts contend in vain,
With human skeletons the whiten'd plain.
—Chain'd at his foot two scion-demons dwell,
Breathe the faint hiss, or try the shriller yell;
Rise, fluttering in the air on callow wings,
And aim at insect-prey their little stings
So time's strong arms with sweeping scythe erase
Art's cumberous works, and empires from their base:
While each young Hour its sickle fine employs,
And crops the sweet buds of domestic joys!"

New York, June 26, 1819.

JOHN S. SKINNER, Esq.

Dear Sir—Among the important causes which are contributing to the display and cultivation of our internal resources, I must include the salutary influence of your excellent Agricultural Journal—'*The American Farmer.*' We have long wanted papers in this country, exclusively devoted to those great and fundamental branches of industry and enterprise, which sustain the greatness, the grandeur, and the power of empires. Such publications have produced great effects in Europe; they will produce consequences of still more moment here, because, the field of improvement is more vast and fertile, than

† The soiling system I must again and again recommend, as most economical and most profitable. It pained me to see my neighbour's cattle running over 60 or 80 acres, nearly one third of his farm, destroying all vegetation, and dropping their manure only to be exhaled. Suppose the land worth 40 dols. per acre, the interest will amount to 192 dols. and I am convinced the grass thus checked in the spring, did not produce as much food, whilst his field is deteriorating. Had he confined his cattle in a small compass, and mowed grass and carried it to them, his land would not have been impoverished, and he might have collected manure to enrich it.

* A work might perhaps be written on the ANTIPATHY of Plants, quite as useful, if not as interesting as DARWIN'S "*Loves of the Plants*," if undertaken by a writer possessing his genius and his erudition. Numerous are the facts which might be collected, and curious the deductions that would follow, from the united labours of the Botanist and the Chemist. They might even inform us, for example, *why* it is, that, according to the authority of our correspondent, the same thorn which strikes its hardy root and flourishes in the most barren soil, will sicken and die in the richest loam at the approach of the *walnut*, whose shade and countenance, are known to contribute life and vigour, to many other individuals of the vegetable kingdom.

Nothing is better known, than that almost all the productions which engage the care and give profit to the labour of the Husbandman, prosper highly in the presence of the *locust* tree, while the *chesnut oak*, on the other hand, seems to carry about it, like GODWIN'S famous *Misanthrope*, "an atmosphere of repulsion," beyond which no vegetable ever dares penetrate; within its sour and unkindly presence no vegetation is seen to flourish. A scientific inquiry having for its ob-

any nation, beyond the waters, has ever presented.

You have congratulated me, upon the bold and munificent policy which distinguishes the state of N. Y. at the present period, in advancing the improvement of her internal trade, her agriculture, her manufactures, and her arts and sciences. All your feelings in this respect, are ardently reciprocated by me; and as a testimony of my sincerity, I shall now communicate to you some facts in relation to a great and stupendous work, in the vicinity of this city, which deserves to be ranked with our Canals; our Board of Agriculture, and other objects of public utility—I refer to the reclaiming of more than four thousand acres of salt marsh, a meadow, which we know here by the name of 'SWARTOUT'S MEADOWS.'

About four years ago, three gentlemen of the city of New York, General JOHN SWARTOUT, General ROBERT SWARTOUT, the present navy agent, and their brother, SAMUEL SWARTOUT, Esq. purchased two tracts of salt marsh, including four thousand two hundred acres, part of the tract lying at Hobocken, and a part at Newark. The ground when first purchased, was apparently of little value, being covered, in a great measure, by water, and subject to the perpetual inundation of the tides. It was so sunken and spongy, that a person could scarcely be sustained in walking upon it. It produced nothing but wild salt grass and appeared uncongenial to valuable vegetation. The bold and hazardous design of reclaiming these grounds, was viewed by the public as a visionary scheme, whose result would be a complete failure in the attempt, and a loss of labour and money. The proprietors were, however, gentlemen of fortune and enterprise, and commenced the great work with zeal and resolution, and have now convinced the public, that their imputed dreams will eventuate in solid realities.

A few days since, I visited these meadows out of curiosity, and was astonished at the grand and cheering prospect which they now exhibit. The proprietors have made *seven and a half miles* of embankment, which is sixteen feet wide at the base, and five feet high, and *one hundred and twenty miles of ditch*, of different depth and width! Thirteen hundred acres are completely reclaimed, and the soil so firm and solid, that armies might contend upon it, and chariots be driven over it with safety. The remaining part of the meadow is in a state of rapid improvement, and will soon be in a complete state of preparation for the growing of crops. Four hundred tons of excellent hay were cut upon them last season, and in many places, the production was as great as five tons to the acre. Forty acres in one place, is now covered with the most superior rye, and fields of corn, oats, and wheat, are flourishing in luxuriance, where but a short time since, nothing appeared but the wild sea grass, and a dreary receptacle for insects, reptiles, and water-fowl. All the vegetables which grow in the vicinity of New York, can be cultivated here to advantage—such as wheat, rye, barley, oats, corn, hemp, flax, peas, beans, potatoes, turnips, beats, carrots, &c. In one place, I saw half an acre of excellent asparagus, and on another spot a beautiful nursery of young locust-trees. The future value of these meadows, is indeed beyond calculation. Consider for a moment, the rapid growth of our city; the thousands who are annually added to our population, and the high price of vegetables in our market; consider the vast depot, which New York will form, when the commerce of our great lakes, and the commerce of the ocean, shall form the emporium of exchange at the mouth of the Hudson, and then calculate the value of more than four thousand acres of land, as fertile as any in the world, with in the view of the spires and domes of our metropolis—and with me, I think you will say, who can tell its worth! I am not seduced from reason, by the visions of speculation.

One fact deserves particular mention, eighty five cows, are now kept upon these marshes, and the milk daily brought to our city, in a purer state than is usually sold. It is sold two pence per quart cheaper than milk is generally furnished, and this is producing a general reduction of the price. Should this reduction become universal, and admitting that there are six in each family in our city, and that each family consumes a quart of milk per day, and the annual saving to the community, in this one article alone, would be one hundred and fifty thousand dollars! From three to five hundred cows could be easily fed here.

The improvement of these meadows presents another important consideration. Draining and embankment, are but little understood by the people of this country. Our vast and vacant regions of fertile lands, at the west and the south, have precluded the necessity of that rigid cultivation of waste lands, apparent over the face of Europe.—As population, however, clusters upon our seaboard and upon the borders of our great rivers, the expediency of converting such lands to value and fertility, increases. By many intelligent men, it has been calculated, that should all the marshes, and meadow lands of New England, be drained and embanked, where necessary, that she could sustain twice her present population. Whether this be correct or not, if the eastern states become, as they will, a great manufacturing country, the calculation applies to them with great force. Within the vicinity of the city of New-York, there are *fifty thousand acres of waste land*, similar to Swartout's Meadows. Is not the act of draining and embankment thereof of much consequence to this country? If the whole of this great tract of fifty thousand acres, within our sight, as it were, was completely reclaimed, the effect upon our markets, and even upon the health of our city, would be abundantly visible.

In making embankments, many improvements have been made by the proprietors of these reclaimed meadows. The muskrat has often been found very destructive to embankments, by perforating the mound in a thousand places, and thus defeating its very object. The great error was discovered at once by the Messrs. Swartouts, and remedied. The great error in most embankments has been, that they were thrown up too near the water's edge, and the ditch made next to the main land, instead of being made next to the water. This induced the muskrats to open channels and communications through the barrier, from the water of the river and the ocean, to the water of the ditch. This trouble is avoided by making the embankment at a considerable distance from the great body of water to be excluded, and having none on either side of it. No difficulty will ever be felt from these little animals of toil and enterprise, if the same plan is adopted.

In cutting channels or ditches, it has been found most expedient to have the sides slope more than is usually the case, coming to a point and forming an obtuse angle at the bottom. In this way the ditches cleanse themselves.

During one year, one hundred and eighty-five men were daily employed in improving the Newark and Hoboken meadows; and I have been informed by the proprietors, that they can now drain and embank at an expense one third less than they could when they commenced that magnificent work—so much for the lessons of experience and observation!

The soil of these meadows is a rich, black loam, which appears to have been formed by deposits from the ocean, and the long and repeated decay of vegetable matter. There has been a well sunk forty feet, and the soil appears still the same. The surface of the soil rises as you go from the interior towards the ocean, and is the highest near the edge of the water. The same circumstance occurs in viewing the marshes of England.

Draining and embankment are of great importance in Europe. The moors of Holland, and the bogs of Ireland, have long been recognized as an evidence of the fact. In England, this method of improving lands subject to inundation, has been carried to a great extent. It was even commenced in England by the Romans. The Saxons carried it to a considerable extent. At an early period in G. Britain, when lands were wrested from the sea, it was called "*inning.*" In the days of Edward I, Edward II, Elizabeth, James I, Charles I, and Charles II, as well as in the days of Oliver Cromwell, the draining and embankment of lands was made the subject of Parliamentary concern, and important acts of Parliament passed on the subject. The Bedford level, which takes its name from being drained under the direction of Francis, Earl of Bedford, contains 300,000 acres. Romney Marsh includes a tract of land of more than forty thousand acres. Guilford Marsh contains between three and four thousand. The Dymchurch Wall, in the county of Kent, is an immense embankment, and forms a road for carriages from Hythe to Romney. It is from 10 to 20 feet high from the surface of the marshes, and extends three miles. Besides draining the marshes, great advantages have been realized in England, by draining the fens. I mention these facts to show what other countries have done, and what we can do.

I could detail many more facts of interest, but conclude by observing, that I deem the three Messrs. SWARTOUTS entitled to every expression of praise, and every act of public patronage, that can reward great, bold, and successful projects, whose accomplishment is blended with public utility. They have wrested a sunken, dreary, unhealthy waste, from the ocean, and we shall soon see it covered with luxuriant verdure, waving fields of grain, gardens, groves of Locust, and whitened with flocks. And yet this stupendous work excites but little interest in our city!

There are thousands of enterprizing, public spirited men, busied in great plans of improvement, who have never crossed the Hudson, to view one of the most magnificent undertakings that has ever distinguished the liberal spirit of this great state. But this cannot long be the case. public justice and public gratitude will soon awake, while we have those who project vast plans to develope the resources of our interior, and execute them by the exercise of public authority; we shall not forget individuals, who boldly march in the face of public ridicule, and raise a noble monument by their individual efforts, which will commemorate their names while public benefactors are esteemed and remembered.

With great respect,

Your obedient servant,

CH. G. HAINES.

NOTE BY THE EDITOR.

How many feet does the tide rise or fall at New York? There is in this respect a very great difference even between the Delaware and the Chesapeake—the rising and falling being very much less in the latter, than in the former. How is this to be accounted for—and is it practicable to reclaim marshes subject to overflow, where the tide does not ebb and flow more than three or four feet, as in the Chesapeake? To this interesting topic we invite public attention, as it is well known that there are now many thousand acres of profitless marsh on the tributary waters of the Chesapeake, which would, if reclaimed, be of incalculable value to the owners, contributing alike to their pockets and their health.

From the practical American Gardener, published by Fielding Lucas, junr.

For the Month of July.

Wall and Espalier Trees.

Examine, carefully this month, wall and espalier trees, rubbing off all irregular shoots, and training in all such regular growths, as are designed to remain; pick off all punctured and decaying fruit, rake them out of the garden; also such as have fallen, and destroy them, otherwise the worms, which are in the fruit, will soon come to the fly state, and commence their depredations.

Suffer no shoots to remain on the stocks of the grafted or budded trees, which would certainly rob them of their proper nourishment.

Destroy Wasps.

Before the fruit begins to ripen, hang up glass vials filled with honey and water, or sugar and water, in different parts, among the wall, espalier, and standard fruit trees, in order to destroy wasps, ants, &c.

Clean the borders.

Hoe and clean the ground about the wall and espalier trees, to destroy the weeds, which would rob the trees, of their just portion of nourishment.

General Observations.

Be particular in attending to weeding, shading, and watering, as directed in last month, which see.

You should continue to train the evergreens, as you desire, and trim off all unnecessary shoots from forest trees and others.

Budding and inoculating.

The budding or inoculating of cherries, plums, pears, &c. is recommended by many gardeners, to be performed in the middle states, in this month, but it would be better to have been done, as described last month, which see, provided the wood will separate from the eye of the buds.

Apricots, if budded on plum stocks, or those of its own kinds, may be done in this month.

General observations.

Some of the early productions of the garden may now be gathered for use. Pick and carry away all decayed and fallen fruit, and if any of the trees are cankered, or have much gum, cut out the decayed part, and rub tar over the wound. It would be of use to turn pigs into the orchard, at this season to eat up the decayed fruit, and destroy the numerous insects therein.

Bulbous and Tuberous Roots.

Such bulbous roots are now to be taken up, as were not sufficiently matured, nor their leaves decayed last month, so as to be suitable to be taken up then, as ornithogalums, bulbous irisis, martagon and other lilies. Plant the roots of fritilarias, crown imperials, dens canis, and such other bulbous and tuberous rooted flowers, as do not endure to be kept long out of the ground; and this being the season, when the roots are not in action, is the most suitable time for transplanting them.

The crown imperial may be treated as follows; lay a large fresh cow dung, in the place you design to set the crown imperial: then in the centre fix the root, crown it with another large fresh cow dung; after this cover the crown of the plant, about six inches with light rich earth.

Carnations and Pinks.

The choice carnations and pinks should be attended to, as directed in last month. Continue to propagate them, by layers and pipings, as directed in June.

When the layers are properly rooted, which will be the case with most sorts in four or five weeks after laying, provided they have been kept regularly moist, and screened from the heat of the mid-day sun, they are then to be taken off from the parent plant, with about half an inch of the stalk, which connects them, and immediately planted in pots, one, two, three or four in each. The pots should be filled with the compost heretofore recommended, and when they are planted the pots should be buried to their rims, in a convenient airy place, and arches of hoops placed over the bed, on which to lay mats, to shade the plants from the sun, till well rooted, and growing freely; also to protect them from heavy torrents of rain.

Here they are to remain till November, when they must be removed into their winter department. Other layers may be planted in beds of rich earth, where they are to remain till September, when they may be taken up and planted where they are to flower. Pinks may be managed in the same manner.

Sensitive Plants.

The sensitive plants, which have been raised in hot beds, may, about the first of this month, be brought out in the open air, and placed in a very warm situation, for they delight in much heat. Some ought to be kept constantly under glasses, for when fully exposed to the weather, they lose much of their sensibility.

Gathering and Collecting Seeds.

Collect all the different sorts of seeds, as they ripen: spread them upon papers in a dry shady place; and when sufficiently hardened, let them be carefully preserved in their capsules or pods, put up in paper bags, until the proper season for sowing them.

The seed of geraniums, xerantheums, and of any other quick growing green house plants, may now be sown, and if properly treated, will attain a considerable size before winter.

Dionæa Muscipula.

The *Dionæa muscipula*, or Venus' fly trap, is one of the most extraordinary productions in the vegetable world. Each leaf is divided, as it were, into two joints, the lower part flat, longish, two edged, and somewhat heart shaped; the upper joint consists of two lobes, each semi-oval, the margins furnished with stiff hairs, like the eye lashes, locking into each other, when the lobes close like the teeth of a rat trap, to which the lobes, marginal hairs, and the manner of their closing, bear a particular resemblance. The interior of the lobes is very irritable in warm weather, at which time, if an unfortunate fly happens to creep in it, the lobes immediately fold up and confine it; the greater the efforts made by the insect to disengage itself, the more it irritates the interior parts, and consequently is the more firmly secured, where it remains until it perishes. When the irritation having ceased, the lobes open as before. The observer, by introducing a small feather between the lobes, will be amused with their closing upon it.

This plant is a native of South Carolina and Georgia, where it produces in July and August, bunches of handsome white flowers, on stems from six to eight inches high. In the eastern and middle states, it will be best to treat it as a hardy green-house plant, although it has stood the winter in the garden of the House of Employment of Philadelphia.

It is propagated both by seeds and off-sets, which last are to be separated and planted in this month, in a swampy soil, with a mixture of fine sand, to be well watered and shaded in the summer months. The seed to be sown on a hot bed early in the spring, and forwarded with care until the summer, when to be managed as before directed.

The Tutsan Leaved Dog's Bane.

The *Apocynum Androsæmifolium*, or tutsan leaved dog's bane, is interesting, not only on account of its beauty and fragrance, but also on account of the curious form of its flowers, and their singular property of catching flies.

It is a hardy perennial, indigenous in several of the United States, flowering from the beginning of July to September. It is propagated by sowing the seeds in spring, which it produces abundantly in its native soil, or by parting its roots in March or October.

Auriculas and Pelyanthuses.

When any dead leaves appear on your auriculas and polyanthuses, let them be immediately picked off, and suffer no weeds to grow in the pots.

Preserve them carefully from the mid-day sun, which at this season would destroy them;

keep the earth in the pots always moderately moist.

The auricula and polyanthus seedlings, that were sown last autumn, if they have grown well, and of sufficient size, should be planted into boxes or pots in the last week of this month, or the first in August, and placed in the shade, to grow to the middle of October, when they may be more exposed to the sun, and early in November, taken into their winter quarters.

General Observations.

Clean all the borders and flower beds from weeds and every thing which disfigures them.

Stake and tie up the flowering stems of such plants as stand in need of support, to prevent their being borne down by winds, heavy rains, &c.

Cut down the stems of such fibrous rooted plants, as have finished their bloom, except where the seeds are wanted; all such ought to be removed as soon as possible, as their appearance is unpleasing. By this means, the plants, though past flowering, will appear more lively, and the bloom of the others will show to greater advantage.

When there is an over proportion of young fruit set on the limbs of orange, lemon, citron, and shaddock trees, thin them to a reasonable number on each, in proportion to its strength; they may be divested of all flowers produced afterwards.

The earth in the tops of the tubs, should be taken out frequently, and particularly at the time of fruiting, for two or three inches deep, and replaced with fresh compost, which would greatly encourage the growth both of the fruit and the trees.

Those plants which require larger pots, may now be shifted, agreeably to directions.

Propagate Plants.

Continue to propagate the various kinds of green house plants, by cuttings, layers, suckers, &c. as directed in the preceding months, most kinds will still succeed, by cuttings of the present year's wood if carefully planted, duly shaded, and moderately watered, they will now take freely, in suitable earth, without the assistance of a hot-bed. Let the cuttings be taken from healthy plants, they should be from four to eight inches in length, and strong shoots. The leaves should be stripped off more than half way up, and the cuttings planted about two-thirds of their length, in suitable earth, placing hand glasses over them, also shade and water them.

Transplanting Seedlings and Cuttings.

Such seedlings of green house plants, as have been raised from the spring sowing, which are now three inches high, or more, should be transplanted into small pots separately, and immediately watered; they must be kept shaded, till well taken with the earth, and fully growing, after which screen them from the mid-day sun for the remainder of the season.

Many of the cuttings planted in spring, will be well rooted by this time, and may now be taken up with as much earth as possible about their roots, planted separately in pots, and shaded for eight or ten days from the mid-day sun; keep the earth in the pots moderately moist.

THE FARMER.

BALTIMORE, FRIDAY, JULY 9, 1819.

Present Prices of Country Produce

Ascertained by actual sales, within the last week.

Live Stock. Fourteen bullocks—sold by Mr. Wilson, near Charlestown, Virginia, averaging about 750 wt. each—to the Messrs. Rusk's, for $8 50 per hundred.—The meat, was equal in quality, to any we ever saw—it sold, the prime pieces, for 12 1-2 cents per pound. Two of the bullocks, above-mentioned, yielded 419 pounds rough fat.—*Chickens* 2 50 to $3 per dozen—*Young Geese* 62 1-2 cents each.—Veal, from 10 to 15 *cents per pound*—Mutton 6 to 8 cents—Bacon, retail, 12 1-2 to 15—Salt beef, prime pieces, per pound 8 to 10 cents—Salt Pork 9 cents—Eggs, per doz. 25 cts.—Snap Beans, 37 1-2 cents per peck—Potatoes, new crop, 50 cts. per peck—Herrings, per barrel, 2 75 to $3 for No. 1—No. 2, 50 cents less—Pork, per barrel 16 to $20, according to quality.

Tobacco, Patuxent, 8 and $10 and 10 a $12 according to quality—some sent by Mr. CRANE, near Parker's Creek, Calvert County, sold by Mr. JOHN SPICKNALL, for $11, quality, long brown; some wagon Tobacco, on Wednesday, for $12 50; Corn, Red and White, 50 cents, from Delaware, yesterday—Rye, from same place, sold yesterday, 100 bushels, for 65 cents. Red Wheat, from Fairlee Creek, Kent County, for $1 15—about 50 bushels of new Red Wheat in market yesterday morning—$1 12 1-2 was offered, and $1 15 asked—Oats 50 cents.—Hay, is from 17 to $18 per ton—Straw, $10.

From the American Critical Review, of January.

NEW YORK AND ST. PETERSBURGH.

During the last summer, two American Ploughs, of an admirable plan and exquisite workmanship, were forwarded to the Czar of the Russias; one as a model for his cabinet, and the other for employment in the field. They were conveyed, by permission, in the public ship, commanded by Commodore *Macdonough*, that carried the Minister, *G. W. Campbell*, to Muscovy. A note of address and explanation was elegantly engrossed, and tied to the handle of one of the ploughs, before it was nailed up in the box. We offer to our readers a copy of that document, which so nearly resembles a state paper, that it cannot fail to interest, not only our patrons, but indeed all the lovers of their country's fame and honour.

SAMUEL L. MITCHELL, *a citizen of the United States of America, to* ALEXANDER, *Autocrat of all the Russias.*

May it please the Emperor,

I have been induced to offer, for the acceptance of his imperial majesty, a *Plough*, which is considered generally in these parts of America, superior to any instrument of the kind that has ever been invented.

Previous to taking this step, I consulted my friend, the honourable Andrew Daschkoff, his majesty's minister plenipotentiary in the United States, who feels a lively interest in every improvement that can be useful to his country. As the time of his departure was uncertain, he recommended that the plough should be intrusted to Mr. Campbell, the new minister to the imperial court of St. Petersburgh, who could, with propriety, bring it to his majesty's notice through the secretary of state or the agricultural society. Mr. Daschkoff also encouraged the persuasion, that it would receive the approbation due to its merit. Application was then made to the honorable John Quincy Adams, secretary of state, at Washington City, for leave to send the plough to its destination, in the public ship, now bound to Russia. The matter was submitted to the president of the United States; who consented that directions should be given to the commander of the Guerriere, that the plough for the emperor of Russia might be received, for conveyance on board that vessel, now lying at Boston.

The inventor is Mr. Jethro Wood, a respectable farmer, residing in the county of Cayuga, and state of New York.

The constructor is Mr. Thomas Freeborn, a very worthy artist, living in the city of New York.

They both request me to express their earnest hopes, that this *Georgical Utensil*, contrived by the genius of the former, and manufactured by the skill of the latter, may be graciously considered by his majesty.

The advantages of this plough are manifold but may be referred to the following principal heads: 1. Its greater aptitude to penetrate the soil, and form a furrow. 2. A simple and desirable fitness in the mould board, by means of the spiral form of its inclined plane, to raise the sward from its horizontal bed to the perpendicular, and to turn it upside down. 3. The substitution of a cast-iron plate, of the cost of half a dollar, to be screwed to the low and fore edge of the mould board; instead of the heavy, expensive, and old-fashioned share. 4. The use of cast iron, instead of hammered iron, for the mould-board itself, and the several land irons. 5. The construction of the entire plough, with the exception of the beam and handles, of cast and wrought iron, whereby every part is properly braced and secured. 6. Its moderate price, its strength, and durability; and the small expense of time, labour, and stuff, requisite for repairs. 7. The saving of a considerable portion of the labour of the beasts who draw, and of the man who conducts the plough. 8. The handsome and workmanlike appearance of a field prepared for planting and sowing by this instrument.

Inspection and practice will disclose the other conveniencies of WOOD'S FREEBORN PLOUGH, which is thus placed at the foot of the imperial throne.

SAMUEL L. MITCHELL.
Late Senator in Congress for New York, Professor in the University, Member of the Agricultural Society, &c.

New York, June 22d, 1818.

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